

*Strategies and policies for the Information Society:
Global programmes and projects*

**Results and experiences of 10 years of library cooperation
programmes - whither next: converging futures**

by A. IUON

Ladies and Gentlemen,

Ten years have now passed since the European Commission first issued the discussion document describing a possible action plan for the modernisation of libraries across Europe through the use of automation and networking; nine years have passed since the launch of our first "precursor" cooperative projects and thence the start of the Libraries programme under the 3rd Framework Programme for R&TD. We are now nearing the end of "Telematics for Libraries" under the 4th Framework Programme for R&TD even if many projects launched this year are likely to go on for quite a while.

The time is ripe for stock-taking: to measure the achievements over a decade against the initial objectives and to identify the areas where progress has been limited and more effort is needed; to assess the experiences made in order to be able to confront the challenges of the future.

WHAT HAVE BEEN THE LESSONS LEARNT ?

First of all, you have to think back to our initial goal: to start a process of change in libraries which could become self-sustaining, generate a momentum and a snowball effect, promote the benefits of European cooperation - all of that in view of longer-term objectives such as inter alia promoting the availability and accessibility of modern library services throughout the EU whilst taking into account "geographic" discrepancies in

library provision; more recently also promoting an open EIJ-wide libraries infrastructure. If one pauses one moment (to reflect on the EU context, one realises that we are confronting a tremendous challenge - the sheer size, complexity and diversity of the libraries scene in Europe, the number of Member States and languages, the diversity of perceptions in which are anchored practices and habits. Moreover, as we are addressing an area of national/regional/local responsibility, we were confronting the additional challenge of proving a European added-value to be obtained from promoting cooperation and European attitudes.

Bearing this in mind, I believe that we - I mean here both the Commission and the libraries in Europe - have come some way to achieve the initial goals and objectives, largely also because we were not working in a vacuum and the world was evolving with us.

The facts speak for themselves, if you remember to set them in context: the limited size of the budget available (around 50-55 MECU of EU funding over the period); the lack of experience of cooperative project work in libraries, the time it takes to carry out a quiet revolution in habits, practices and perceptions and for it to spread to the remotest corners.

We have launched over 80 cooperative R & D projects since 1991 and if you add to that other type of actions, feasibility studies and the precursor projects, that adds up to well over 100, without counting the many technical studies which we have published (with Portuguese participation in some 17 R & D projects and 2 of our platforms - CoBRA and PUBLICA). These have involved around at least 400 individual organisations across the whole of Europe of which around 50% are libraries. Probably this has touched at least 900 to 1000 people - and this figure is likely to be conservative. These people are the "multipliers" through whom the "quiet revolution" takes place. I think that it is (perhaps) fair to say that most of these people have had a good experience through their connection with or participation in the projects and other actions.

In terms of general scope, projects and other actions have involved all types of libraries, even public libraries which have been a little slower to start. In terms of technical scope

and issues, there is a great diversity and projects can be clustered in different ways - by the functions and issues addressed, by the technologies and standards experimented with and so on. I won't go into details here, because all this information is easily available - for instance on our Web site, on our CD-ROM and from your National Focal Point. Most of the topics and issues addressed by the projects are actually very much in the forefront of preoccupations - not only of libraries but also of other organisations involved with the management and manipulation of information and data. I can cite 2 examples (although there are many more !): for instance ensuring interoperability of systems for the purpose of searching and retrieving - ie. through the use of what is now known as the Z39.50 (version 3) protocol, the issue of Metadata to tag records or whole databases to enable access. In such fields, our projects have done pioneering work.

WHAT ARE THE CONCRETE RESULTS OF SUCH WORK

Certainly all projects have so far completed the work they set out to do, and the ongoing and new projects launched from our last Call for Proposals are likely to do the same. There is a growing body of public deliverables (technical reports, "freeware" and the likes) available which represents a tremendous know-how. We already have a collection of over 900 technical reports delivered by projects - of which a large proportion has a public availability status. Many of them have been put up on the World Wide Web by the project partners. Few FP3 projects have actually directly resulted in a commercial product, but that was not really the purpose of the projects (see however the CD-ROMs of MUMLIB and INCIPIT). Some projects have provided the prototypes of new software products ((eg MORE) or enhancements to own systems (eg. EURILIA) - others have provided central components to other projects and software systems even in other fields (for instance USEMARCON and EUROPAGATE, and the YA2 and ZNAVIGATOR modules). Some projects have led to services (eg. EDUCATE) which I hope will be continued and expanded, and yet others to even more ambitious and sophisticated projects (eg. ELISE, DECOMATE, DALI/UNIVERSE). Most projects (but some in particular - projects such as FACIT, PLAIL, MOBILE, etc.) have resulted in technical expertise for at least some, if not all the participants, in all kinds of areas. A cluster of projects experimenting with the search and retrieve networking standards has generated a solid base of expertise in this area, and the same is becoming true in the area

of document delivery. National libraries have started to explore together some of the important issues confronting them via the CoBRA platform and through projects such as NEDLÍB, BIBLINK and AUTHOR as well as others. ECUP and its prolongation in ECUP+ has created a body of awareness across Europe on the importance of the copyright issue in an electronic environment. Some projects have even taught lessons that certain technologies are not yet quite ripe for operational services where 100% operational reliability is needed (eg. SPRINTTEL). One of the precursor projects has led to an operational international service (EROMM). I can't enumerate all the results of all the projects as there are too many '

The variety of the projects (just as the variety of topics addressed by our studies and the interest shown in these publications) calls for a few remarks. First of all, one can conclude that libraries in Europe are indeed making an effort to catch up on some widely recognised trends (such as standardisation of data formats and communication protocols) and are preparing themselves for the digital age. Secondly, it is clear that libraries do not ignore the many problems raised by the new electronic world and in particular by electronic publishing and are beginning to address them. Thirdly, many projects are experimenting with new services which use technologies innovatively or which prepare users for the technologies

What is now needed is the multiplier effect building on all those results for all those other libraries which have not participated in the individual projects to benefit also from those results. We hope that the new measure called EXPLOIT which is about to start will help this happen - but the take up, in the end, is up to the libraries themselves and their library authorities in the various countries. I believe that by the time our FPÍV projects finish we will have achieved as much of a critical mass of awareness and experience as could be hoped for, to enable libraries to be prepared for and to benefit from future EC programmes.

WHAT HAS BEEN LEARNT

Certainly that cooperation across EU countries and differing cultural backgrounds is a valuable experience - some project consortia have been particularly successful and

cohesive (the proof is they have come back together to work on new projects !). One interesting fact in support of this is the large number of libraries which have been identified by our National Focal Points interested in participating in projects as "test-sites" (273 altogether). One has to recognise that cooperative projects are not at all easy to mount and to execute successfully - especially with all the constraints imposed by the Commission contracts and the success of the projects is thus to the credit of their consortia. It must be said however in our defense that many of these constraints are there to ensure as successful results as possible from the projects ! After all it is public monies that we are dealing with. Nonetheless, I believe that we are now past this learning curve and that cooperative project work is better understood and thus easier to carry out.

In all this positive picture, there is one area where the results have been rather limited. We have not yet been able to stimulate the traditional library automation players very much to enhance their commercial systems - nor have we managed to attract many new players from the software industry to enter this market. Yet, this was the purpose of Action Line 4 of the FP3 workprogramme because the need for new performant library systems is real.

The comment that one can make is that since technological progress is so fast, the traditional library automation systems vendors propose will eventually be overtaken by completely new systems and approaches to the management of information. Note for example the impact of the Web and Web browsers already being felt on library services. These traditional systems will all become "legacy" systems - and one knows what that means !

NOW WHETHER NEXT

After 10 years of work and achievements what lies ahead for libraries - at least at the European (Commission) level ?

Work and discussion on the preparation of the fifth Framework Programme for R & T D has now been on-going for about 2 years. The Framework Programme itself has been in discussion in the Council and the European Parliament since last spring. At the end of

last year, the Commission issued a working document describing in more detail the envisaged content of the specific programmes. The Commission will soon be issuing the proposals for the specific programmes which will come under the fifth Framework Programme, for discussion and adoption by the Council and the European Parliament, hopefully before the end of 1998. It is therefore expected that the first Call for Proposals launching the programmes can be issued in December 1998 (although practical details still need to be worked out, eg. the workprogrammes, Call documentation, information days, etc).

So "the shape of things to come" is now known as well as both the technical and political objectives to be pursued. In the domain of information and communication technologies, there will be a single specific programme (instead of 3 in the 3rd and 4th Framework Programmes) also known as the "Information Society Technologies" (or IST) Programme. The structure and approach adopted for the programme, as for the other specific programmes, is quite different and is a departure from the past. It is more of a matrix with domains of activities or specific objectives grouped under "Key Actions" and complementing each other. This is designed to provide more flexibility for the scope of RTD to respond to changes in industrial and social needs and in the technological context. The IST Programme identifies 4 key actions as well as an activity on longer term research on future technologies and research infrastructure (research networking). The four key actions are:

- Systems and Services for the Citizen
- New Methods of Work and Electronic Commerce
- Multimedia Content and Tools
- Essential Technologies and Infrastructures

Naturally, there has been concertation at all levels around the scope of the IST Programmes since at least 1996. As regards Libraries per se, we already started in June/July 1996 (ie. before we knew the shape that the programme would take) which gave us very useful technical input.

Now, where do libraries, as users of and "gateways" to IST, come into this schema ? They are explicitly cited, with archives and museums in Key Action III "Multimedia and Tools" under the sub-heading of "Digital heritage and cultural content". Nothing prevents them however (just as archives and museums) from participating in projects submitted under research topics in other key actions if the topics addressed concern them - that is the flexibility.

Under "Digital heritage and cultural content", three broad "research topics" have emerged which we believe are common to the 3 types of knowledge or heritage institutions cited (for want of a better expression) - Libraries, archives and museums - and which can also be an opportunity for cooperation between them. The objectives here are to improve access to cultural patrimony, to facilitate its "valorisation" and stimulate cultural development by expanding the key contribution of these institutions to the emerging culture economy, including economic, scientific and technological development. The broad research topics or RTD priorities focus on:

- Firstly, integrated access to heterogeneous distributed collections in both digital and traditional forms - what I call "managing change" since libraries (as well as archives and museums) will increasingly have to provide seamless access to traditional forms of information (books, journals, papers) as well as new electronic publications or digitised material (from digitisation programmes).
- Secondly, improving the functionalities of very large scale digital repositories - which will require advanced data management techniques, new interactive features and even advanced copyright management tools. One must forecast that digitised or electronic material (or content or data !) will expand exponentially and that this will pose new technical, management and service problems to be overcome (including the loss of the needle in the hay-stack).
- Thirdly, the complex technical and organisational issues around the topic of preservation of and access to valuable multimedia "content" from multiple sources for both electronic materials and electronic surrogates of fragile physical objects. This addresses the dimension of how to ensure (at least technically) preservation and access of such materials for future generations.

All three topics or priorities represent real technical and organisational challenges to libraries, archives and museums both locally and in a global environment.

The challenges are perhaps even greater for those who have not systematically participated in EU cooperative projects and in a focussed programme such as Telematics for Libraries. Nevertheless, this is a real opportunity for all the institutions concerned to make practical experiences together to address and find solutions to problems which they all recognise that they already confront - or shall confront in the near future. It is also an opportunity to create new partnerships and strategic alliances (more successful ones than in the past) with the ICT industry which can provide the tools and systems they require.

As I have already mentioned it, there are also opportunities to participate in projects on other topics elsewhere in Key Action III and in other Key Actions - for instance in interactive electronic publishing or in human language technologies, or in cross-programme themes such as digital sites - and many others. It is really up to libraries (and archives and museums) to read the programme carefully in order to identify the areas where useful work can be done and where they should be contributing. If I have emphasized the section concerning digital heritage and cultural content, it is because in certain ways, this is the section where, although rather different in approach from past workprogrammes focussed on libraries, there are some elements of continuity with past work which can serve as starting points and building blocks (at least for libraries). For instance, our studies and projects related to electronic legal deposit issues, the work on integrated services, on gateways and systems interconnections, and so on. Past work at European level focused first (under FP III) on applying new technology cost-effectively to the resources and functions of traditional library services; the work under FP IV targetted the networked library infrastructure in Europe, as well as initiating 'outreach' actions to the networked information world. The strategy had 2 keywords, to catalyse and then to consolidate. The keywords for this new phase are integration, extension and convergence.

Note that the cooperation and dialogue between such different institutions as libraries and archives, or libraries and museums, is already beginning to occur in real life - although it is perhaps not yet very widespread in Europe. There are some concrete

examples in North America, for example involving R L G and O C L C (the 2 big US library cooperatives), in the Nordic countries and in the UK (eg. the SC R A N project). I take this opportunity to mention the pre-IFLA seminar being organised this year in Amsterdam by TNO entitled "Convergence in the Digital Age: Challenges for Libraries, Museums and Archives", which will take place on 13-14 August.

The technologies and the networks - and especially the Internet, are blurring the borders between organisations and are changing de facto, the perceptions and expectations of what can or cannot be done. The changes which are often put under the head of the "Information Society" are going (if they are not already beginning) to affect our daily lives and our ways of working, of accessing, using and keeping information, of learning and even our ways of using and allocating our leisure time. The signs are already there (for instance in daily office work !) even if they are not spread evenly across all the Member States and their regions. I said earlier that change is a process which is slow to gain momentum - but that does not mean to say that it can stop or be ignored. Really it is now that our European knowledge or cultural heritage organisations can influence the orientations that this change is taking and the conditions under which it is occurring to ensure that they are both moving with it and that their new needs are met. The IST Programme will provide a good framework for that since it recognises that "realising the full potential of the Information Society (in Europe) requires technologies, infrastructures, applications and services, accessible and usable by anyone, anywhere, any time, whether it be for business or individual use" and it will support R & T D of course, but also demonstration and trials as well as actions to encourage take up and the necessary skills to do so.

I would like to conclude with a word on the Information Society context and the role of libraries (as well as other knowledge organisations). The European Parliament has (once again) drawn attention to the importance of libraries in the educational, social and cultural context as well as for citizens in the exercise of democracy. It called last year for a Green Paper (in the Morgan report on the Information Society, Culture and Education) and the Parliamentary Committee on Culture, Youth, Education and the Media is now preparing a report to initiate a debate in Parliament. Clearly, the major structural changes occurring in Europe but also world-wide in such areas as (tele)communications or on

such issues as copyright and licensing, as well as technological advance will provoke many changes and have implications in many domains. This is an opportunity, even an obligation, for libraries to rethink their roles in society and even, if I may say so, actively to assume new roles. Since ancient times, it will not be the first time that they are confronted with a metamorphosis.

Thank you.